

# Augmenting Tandem Language Learning with the TandemTable

Erik Paluka

Christopher Collins

vialab • Faculty of Science • University of Ontario Institute of Technology • ON, Canada

erik.paluka@uoit.ca

christopher.collins@uoit.ca

## Tandem Language Learning

Tandem language learning (TLL) involves a group of language learners who transfer language knowledge to each other through bilingual conversations. Each person acts as a teacher of their native language, as well as a learner of their partner(s)'s language [2].

### Goals

Understand the task and context of tandem language learning

Design and implement a computer-assisted language learning (CALL) system for TLL

Evaluate the software system

## Participatory Observation

To accomplish our first goal of understanding the tasks and context of TLL, we conducted a participatory observation of a TLL environment, called the Conversation Café. We also interviewed its administrator and four participants.

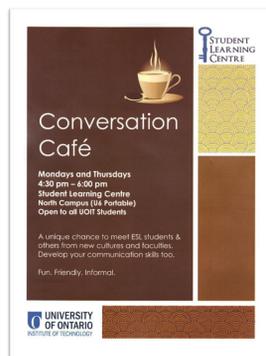


Figure 1. A Conversation Café information poster



Figure 2. Two learners selecting a topic of discussion.

## TandemTable

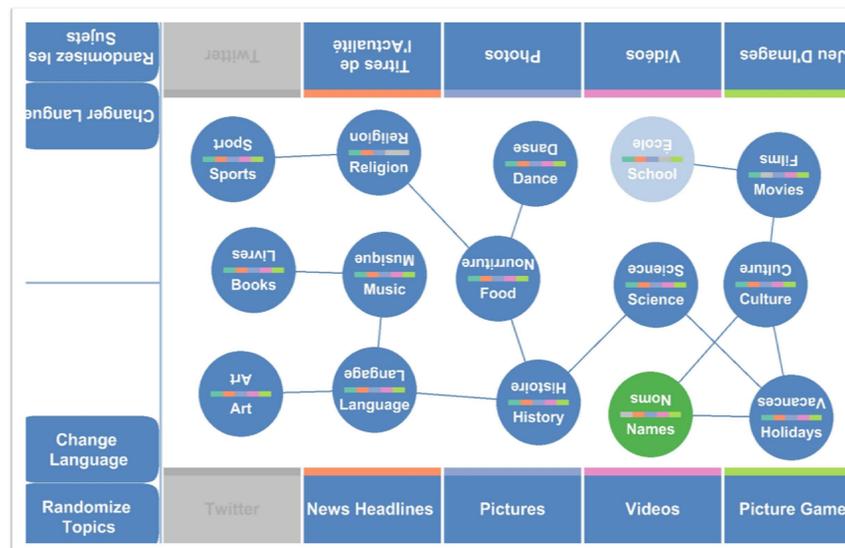


Figure 3. Main interface of TandemTable. A topic of discussion is selected when both learners touch the same node.

Using the insights gained from conducting our participatory observation and interviews, we created TandemTable using the Simple Multi-Touch toolkit [1].

TandemTable

- is a CALL system designed for a multi-touch tabletop.
- supports co-located dyads who are employing the TLL method.
- facilitates the TLL session by suggesting topics of discussion and helping those conversations flow.
- supports English and French.

By suggesting topics of discussion, the system aims to ground the conversations on learner-chosen themes. To help conversations flow, topics are associated with collaborative activities, which contain shared digital artifacts.

These activities include

- tweets from Twitter,
- news headlines & articles from a newsfeed distributor,
- pictures from Flickr,
- videos from YouTube, and a
- word-to-picture matching game.

By providing digital content, which is downloaded from the web in real-time, the system aims to help inspire or extend conversations.

## Exploratory Evaluation

To evaluate TandemTable, a preliminary exploratory study with 16 participants was conducted. In groups of two, participants used TandemTable for a total of 35 minutes to learn a language, while a researcher observed and made notes. Pre- and post-interviews and questionnaires were used to gather additional data.

It was found that TandemTable helped to bridge awkward moments through inspiring new topics and discussion content. All, but one, participant thought that our system helped to increase the amount of discussion between partners, and found that it helped them find new things to talk about.



Figure 4. Two learners using TandemTable.

## Future Work

We plan to conduct a full comparative evaluation study to discover what kind of impact TandemTable has on TLL sessions when compared to traditional means.

## References

- [1] Paluka, E., Cook, Z., Hancock, M., and Collins, C. The Simple Multi-Touch Toolkit. (2013). <http://vialab.science.uoit.ca/portfolio/smt-toolkit>
- [2] Vassallo, M. L., and Telles, J. A. Foreign language learning in-tandem: Theoretical principles and research perspectives. In *ESpecialist*, (2006).